# Zhi Li

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RESEARCH Interests Mobile and Sensor Networks, Mobile Crowdsourcing, Machine Learning and Game Theory

SKILLS

Basic: Algorithm design and analysis, System building Programming: Java, Android, Python, NesC, TinyOS

Language: Chinese (Native), English (TOEFL: R27 + L27 + S19 + W23 = 96)

Honors and Awards Outstanding Graduate Student in Zhejiang Province 2017 Outstanding Graduate Student in Hangzhou Dianzi University 2017 National Scholarship for Graduate Student (11/304) 2016 Nokia Scholarship for Graduate Student (2/147) 2015 National Scholarship for Graduate Student (10/283) 2015 The First Prize Academic Scholarship in Hangzhou Dianzi University 2015 - 2016  $(top\ 10\%)$ 

#### Publications

# Conference Papers

- 1. Jianhui Zhang, Pengqian Lu, **Zhi Li**, Jiayu Gan. "\*". Submitted to *IEEE INFOCOM'18*, under review.
- Zhi Li, Jianhui Zhang, Jiayu Gan, Pengqian Lu, Fei Lin. "Large-Scale Trip Planning for Bike-Sharing System". In *IEEE MASS*, Short paper, Orlando, FL, USA. Oct 22 - 25, 2017.
- 3. Jianhui Zhang, **Zhi Li**, Xiaojun Lin, Feilong Jiang. "Composite Task Selection with Heterogeneous Crowdsourcing". In *IEEE SECON*, San Diego, CA, USA. Jun 12 14, 2017.
- 4. Jianhui Zhang, Mengmeng Wang, **Zhi Li**. "Stochastic Duty Cycling for Heterogenous Energy Harvesting Networks". In *IEEE IPCCC*, Nanjing, China. Dec 14 16, 2015.

#### **Journal Articles**

- 1. Wei Li, Jianhui Zhang, Feilong Jiang, **Zhi Li**, Chong Xu. "Asynchronous Neighbor Discovery with Unreliable Link in Wireless Mobile Networks". Submitted to *Peer-to-Peer Networking and Applications*, under review.
- 2. Jianhui Zhang, Mengmeng Wang, **Zhi Li**. "Charge-aware Duty Cycling Methods for Wireless Systems under Energy-Harvesting Heterogeneity". Submitted to *IEEE TMC*, under review.
- 3. **Zhi Li**, Jianhui Zhang, Xingfa Shen, Jin Fan. "Prediction Based Indoor Fire Escaping Routing with Wireless Sensor Network". *Peer-to-Peer Networking and Applications*, 10(3): 697 707. [Impact Factor: 1.0]
- 4. Jianhui Zhang, **Zhi Li**, Shaojie Tang. "Value of Information Aware Opportunistic Duty Cycling in Solar Harvesting Sensor Networks". *IEEE TII*, 12(1): 348 360, 2016. [Impact Factor: 4.708]
- 5. Jianhui Zhang, **Zhi Li**, Feng Xia, Shaojie Tang, Xingfa Shen, Bei Zhao. "Cooperative Scheduling for Adaptive Duty Cycling in Asynchronous Sensor Networks". *The Computer Journal*, 58(6): 1267 1279, 2014. [Impact Factor: 0.787]

#### Presentation

Stochastic Duty Cycling for Heterogenous Energy Harvesting Networks

- Paper presented at the 34th IEEE International Performance Computing and Communications Conference (IPCCC), Nanjing, China. Dec 15 2015.

### RESEARCH PROJECTS

# Crowdsourcing Based Bike-Sharing System, 2016 - present

- Designed two algorithms to solve the static trip planning problem, the paper is accepted by IEEE MASS'17.
- Built a crowdsourcing platform to collect real-time bike resources information and to provide bike utilization guidance for users.
- Built an application to crawl real-time open bike-sharing information of Hangzhou Public Bicycle.

# Internet of Things Based Fire Escaping System, 2014 - present

- Constructed a fire spread model based on fire data generated by Fire Dynamics Simulator and proposed a fire escaping route planning algorithm based on fire spread prediction. The paper is published in Peer-to-Peer Networking and Applications.
- Designed a smartphone based crowd density detection approach and two crowd density detection algorithms based on Quorum System.
- Built a fire escaping experiment platform with TelosB nodes.
- Built a network with TelosB nodes, Android smartphones and Arduino suite.

# Professional Activities

Reviewer for IEEE Transactions on Industrial Informatics Reviewer for The Computer Journal 2017 2015

Grants

- 1. Excellent Master Dissertation Fostering Foundation, Hangzhou Dianzi University, PI: Zhi Li, May 2016 Mar 2017
  Project title: "Internet of Things Based Fire Escaping System".
- Graduate Scientific Research Foundation, Hangzhou Dianzi University, PI: Zhi Li, May 2015 - May 2016
   Project title: "Wireless Sensor Networks Based Fire Escaping System and Algo-
- 3. National Natural Science Foundation of China, Participator, Jan 2015 Dec 2018

Project title: "Research on Environment Information Collaborative Sensing and Processing in Internet of Things".

4. Zhejiang Provincial Natural Science Foundation of China, Participator, Jan 2014 - Nov 2016

Project title: "Research on Optimizing Task Scheduling Strategy in Random Energy Harvesting Internet of Things".

#### EDUCATION

#### Hangzhou Dianzi University, Hangzhou, China

- M.S., Computer Science and Technology, Mar 2017
- Thesis title: "IoT Based Fire Escaping Algorithm and System Design"
- Advisor: Prof. Jianhui Zhang

rithm Design".

# Hangzhou Dianzi University, Hangzhou, China

- B.E., Computer Science and Technology, Jun 2014

SERVICES

Teaching assistance for JAVA Programming Class monitor

Sep 2015 - May 2016 2014 - 2017

Personal Hobbies Basketball, Badminton, Cycling, Chinese bamboo flute, Guitar.